Technical Procedures for Processing with Amido Black (Methanol Base)

1 Scope

Amido Black (methanol base) is used by FBI Laboratory Friction Ridge Discipline personnel to develop latent prints and enhance visible prints that have been deposited in blood. The process can be used on all surfaces but is primarily used on non-porous items

2 Limitations

The background of porous items may become stained during the process and obscure information.

3 Equipment/Materials/Reagents

Distilled water

Naphthol Blue Black (dye content ≥85%)

Glacial Acetic Acid

Methanol

4 Procedures

4.1 Solution Preparation

Personnel will prepare the solutions as follows. Alterative amounts may be prepared, provided the same ratio of chemicals mixed is retained.

4.1.1 Developer solution

Combine:

- Naphthol Blue Black - 2 g
- Glacial Acetic Acid - 100 ml
- Methanol - 900 ml

Stir until Naphthol Blue Black dissolves (approximately 30 minutes).

4.1.2 Rinse solution

Combine:

- Glacial Acetic Acid - 100 ml
- Methanol - 900 ml

4.2 Notices

4.2.1 All blood must be dried prior to application.

4.2.2 Process may damage painted surfaces.

4.2.3 Process may be used following superglue fuming but a thinner layer of superglue is recommended for better results.

4.3 Application

Personnel will complete the following steps in order:

1. Apply developer solution to item by spraying, dipping, painting, or squirting. Application can also be accomplished by wetting a durable tissue material and applying the material directly to the surface or by applying through a durable tissue material onto the surface.

2. Leave developer solution on item for 30 to 60 seconds.

3. Apply rinse solution.

4. Rinse with water.

5. Allow item to dry.

The developer solution may be reapplied as needed by repeating steps 1 through 3 until no further development is seen with a final rinse of water. Personnel will be cautious of overdevelopment and destruction of background.

For digital capture and photography, see FBI Friction Ridge Discipline Processing Manual Preamble.

4.4 Storage of Solutions

Developer and rinse solutions must be stored in glass bottles.

4.5 Shelf Life

Developer and rinse solutions have indefinite shelf lives provided the reagent checks are satisfactory.

5 Standards and Controls

See FBI Friction Ridge Discipline Processing Manual, Preamble.

6 Safety

See FBI Laboratory Safety Manual for appropriate information.

7 Sampling

Not applicable.

8 Calculations

Not applicable.

9 Measurement Uncertainty

Not applicable.

10 References

FBI Laboratory Safety Manual, Federal Bureau of Investigation, Laboratory Division. Latest Revision.

FBI Friction Ridge Discipline Processing Manual, Preamble, Federal Bureau of Investigation, Laboratory Division. Latest Revision.

Sears, V. G. and Prizeman, T. M. "Enhancement of Fingerprints in Blood - Part 1: The Optimization of Amido Black." *JFI.* 50(5):470.

Trozzi, T. A., Schwartz, R. L., and Hollars, M. L. *Processing Guide for Developing Latent Prints*, FBI Laboratory, Washington DC, 2001.

Rev. #	Issue Date	History
1	10/02/17	Specific section numbers referenced in Preamble removed throughout document. Section 1, latent print personnel added. Section 4 removed and remaining renumbered. Titles for new Section 4 and Section 7 modified. Section 9, generalized. Updated for Biometrics Analysis Unit. References updated.
2	07/15/21	Replace Latent Print Units with Friction Ridge Discipline. Minor wording changes. Change tissue to durable tissue material. Changed "specimen" to "item". Streamline equipment list. Re-organization and re-numbering of sections. Section 1, added last sentence. Added limitation in Section 2. Section 4.1 broken into separate sections – Section 4.1.1 and Section 4.1.2 and added alternate amounts allowance. Section 4.2 broken out into Section 4.2 and Section 4.3. Section 4.3 #1, added further clarification on process. Section 5, added Preamble reference.

Approval

Redact - Signatures on File

Friction Ridge Discipline
Technical Leader Date: 07/14/2021

Latent Print Operations
Unit Chief Date: 07/14/2021

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